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REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicants respectfully submit that the pending claims are not anticipated under 35 U.S.C. § 102 and are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicants will now address each of the issues raised in the outstanding Office Action.

Rejections under 35 U.S.C. § 102

Claims 1-9, 13 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,887,160 ("the Kinoshita patent"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

First, since claims 1-9 and 13 have been canceled, this ground of rejection is rendered moot with respect to these claims.

Next, claim 18 has been amended to specify that, in the second driving mode, pixel signals of odd-numbered columns and pixel signals of even-numbered columns

arrayed in the same row in the image sensing area are read-out, wherein the read-out pixel signals are output to a plurality of output channels selected from among the output channels, and wherein the read-out pixel signals of odd-numbered columns and the read-out pixel signals of even-numbered columns are output to different ones of the selected output channels so as to have different phases. This amendment is supported, for example, by Figure 7, page 23, lines 21-25 and page 24, lines 20-23 of the present application. The Kinoshita patent does not teach this feature as recited in amended claim 18. Thus, claim 18, as amended, is not anticipated by the Kinoshita patent for at least this reason.

In addition, claim 18, as amended, is not anticipated by the Kinoshita patent since the Kinoshita patent does not teach a solid-state image sensing apparatus having a control circuit and two different driving modes such that the *control circuit sets the driving mode to one of the first driving mode and the second driving mode based on an externally input signal, wherein the input signal may be freely set.* In rejecting original claim 18, the Examiner contends that the switching circuit 14 (Figure 2 of the Kinoshita patent) teaches the recited control circuit. (See Paper No. 20080129, page 6.) The applicants respectfully disagree.

The claimed invention concerns a solid-state image sensing apparatus and method which enables high-speed pixel reading by providing multiple output channels to output image data in parallel. In embodiments consistent with the claimed invention, one of a plurality of driving modes (in which pixels in a sensing area are read) can be freely set. Furthermore, the number of output channels

used can be changed depending on the pixel read requirements of the driving mode set. To accomplish this, embodiments consistent with the claimed invention include **a control circuit which sets driving mode to one of the first driving mode and the second driving mode based on an externally input signal, wherein the input signal may be freely set.** This allows pixel read operations to be optimized for various situations such as moving image sensing, automatic exposure (AE) control, automatic white balance (AWB) control and automatic focusing (AF) control. In other words, in embodiments consistent with the claimed invention, the read operation may be optimized by changing the number of output channels to be used depending on the driving mode set by the type of camera operation being performed. (See, e.g., page 3, lines 3-21.)

By contrast, the Kinoshita patent describes a charge-coupled device (CCD) in which a color filter is arranged so as to output an RGB signal for every row, and in which an R signal, G signal and B signal are divided and output from different channels is disclosed. (See column 5, lines 30-36 of the Kinoshita patent.) Further, the Kinoshita patent describes a switch circuit 14 which produces a high range luminance signal Y by switching the divided R signal, G signal and B signal in a predetermined sequence and outputting them. (See column 6, lines 17-24 of the Kinoshita patent.) The high range luminance signal Y is output from one channel by synthesizing the divided and output R signal, G signal and B signal. (See Figures 3 and 6 and column 6, lines 17-24 of the Kinoshita patent.) However, no where does the Kinoshita patent describe the ability to control

(e.g., turn on/off) the output signals OUT1-OUT4, nor does it describe controlling to selectively output or not output a part of the output signals. In other words, in response to input signals $\varphi 1-\varphi 3$ and/or SW1-SW3 (as shown in Figures 3 and 6), the Kinoshita patent *continuously outputs* the divided R signal, G signal, B signal and Y signal on all output signals OUT1-OUT4. Thus, the Kinoshita patent does not teach controlling which outputs are to be used by setting the driving mode to *one of* the first driving mode and the second driving mode based on an externally input signal, wherein the input signal may be freely set.

Thus, claim 18, as amended is not anticipated by the Kinoshita patent in view of the foregoing remarks and amendments.

Rejections under 35 U.S.C. § 103

Claims 10-12 and 14-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kinoshita patent in view of U.S. Patent No. 6,952,228 ("the Yoneda patent"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Since claims 10-12 and 14-17 have been canceled, this ground of rejection is rendered moot with respect to these claims.

New claims

New claims 19-23, which depend from claim 18, have been added and further distinguish the claimed invention

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from the cited art. New claim 19 is supported, for example, by Figure 7, page 19, lines 17-19 and page 7, lines 14-23. New claim 20 is supported, for example, by page 24, lines 20-23. New claim 21 is supported, for example, by page 24, lines 17-16. New claim 22 is supported, for example, by Figure 9, page 21, lines 1-6 and page 23, line 21 through page 24, line 3. New claim 23 is supported, for example, by Figures 8, 9 and 10.

Conclusion

In view of the foregoing amendments and remarks, the applicants respectfully submit that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Any arguments made in this amendment pertain **only** to the specific aspects of the invention **claimed**. Any claim amendments or cancellations, and any arguments, are made **without prejudice to, or disclaimer of**, the applicants' right to seek patent protection of any unclaimed (e.g., narrower, broader, different) subject matter, such as by way of a continuation or divisional patent application for example.

Respectfully submitted,



Leonard P. Linardakis, Attorney
Reg. No. 60,441
Tel.: (732) 936-1400

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